



August 2005 SECAA Program Report

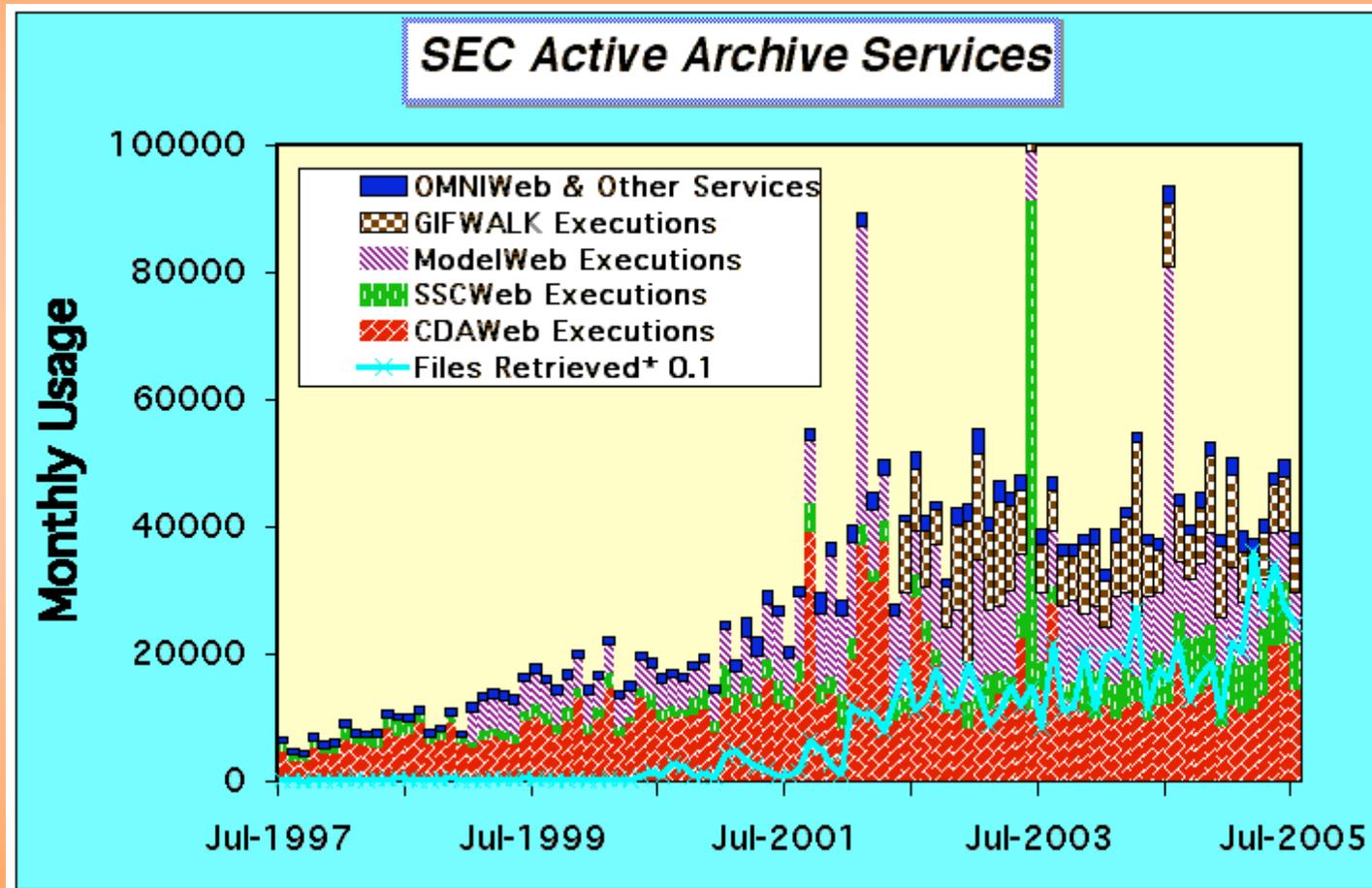
R.E. McGuire
Space Physics Data Facility / NASA Goddard

- **Status, Metrics and Highlights**
- **Work In-Progress and Planned**
- **Budget Overview**



Status and Metrics

- Current SECAA data services are operating continuously and without significant problems



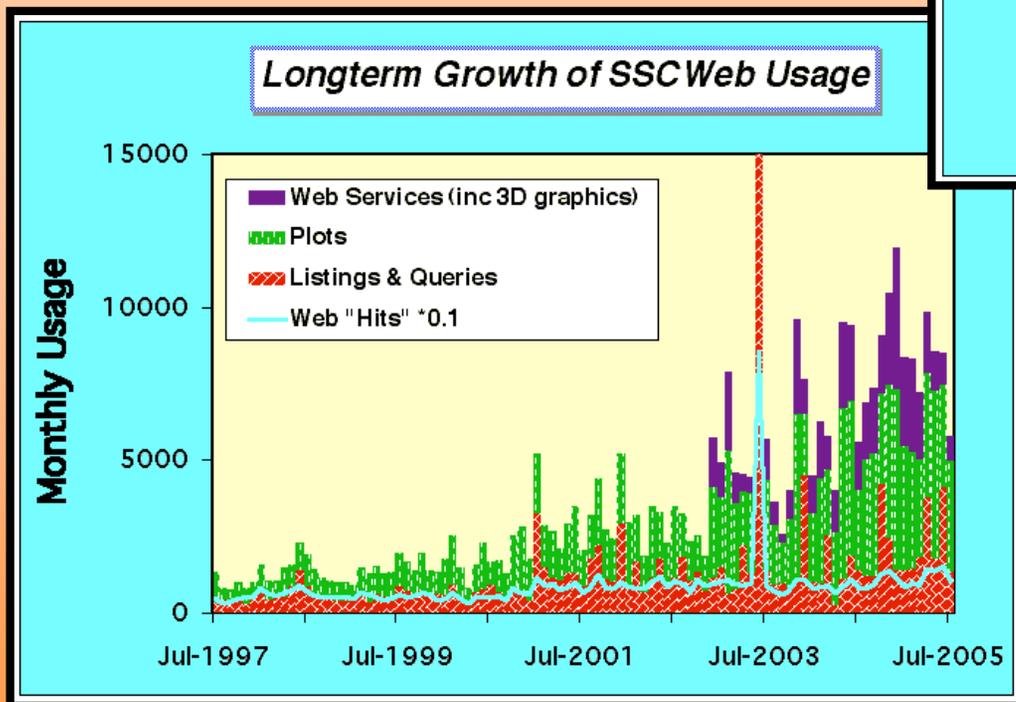
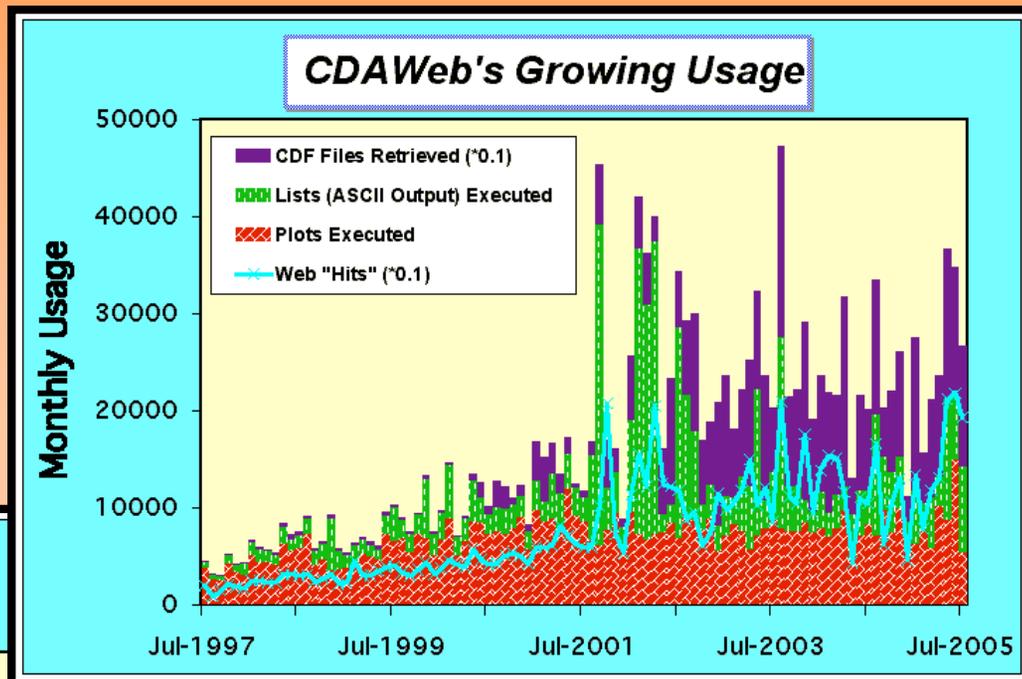
- Figure shows growing combined usage of full range of services
 - Some pre-2001 FTP (in “Files Retrieved”) and GIFWalk statistics not available



Status and Metrics (cont)

- **CDAWeb use by function**

- Note: ~58 space physics instruments now have reasonably current data served from CDAWeb



- **SSCWeb use by function**

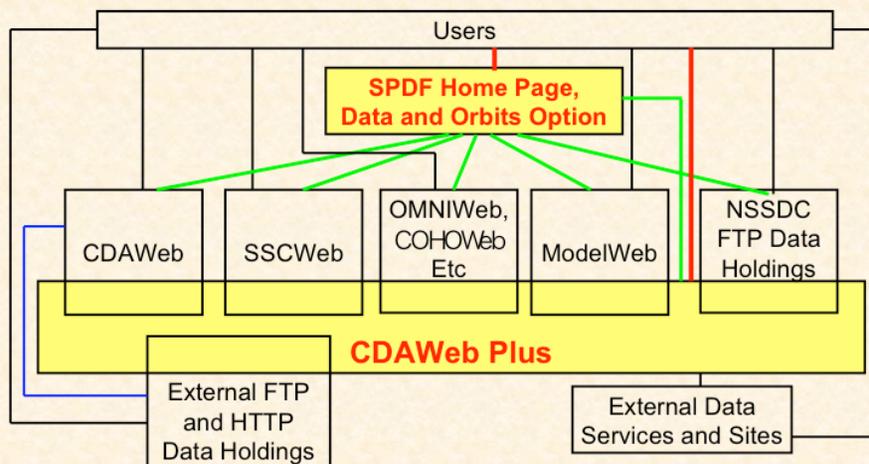
- Note: current orbit data for 36 missions are maintained and served by SSCWeb



Continuing Thrust: Multiple User Interfaces

Architecture for User Access to SPDF Services

- 3 primary paths for users
 - Direct links to all individual services
 - Service/data finding and links via SPDF home page
 - Integrated service/data access via CDAWeb Plus
- CDAWeb Plus presents detailed resources as if common set of CDAWeb-like datasets
 - File retrieval from SPDF, NSSDC, external sites
 - Graphics from CDAWeb and SSCWeb
 - Links to information and external data/services



- **SPDF web pages overall are complete and functioning**
- **Ongoing work to refine the beta-release of the CDAWeb Plus**
 - User interface
 - Performance of the underlying web service application interface



Enhanced CDAWeb Plus Beta Release

Dataset Criteria:

- Sources: (pick one or many, none=all)
- ITM Data including Earth Imaging and Ground-based Magnetometers, Kilometers, Sounding Balloons, and Spacecraft
- Interplanetary Data near 1 AU
- Interplanetary Data not at 1 AU
- Magnetospheric Data
- Solar Observations
- Other Data Sources Not Listed Below
- ACE
- AE

Instruments: (pick one or many, none=all)

- Ground-based magnetometers, Kilometers, Sounding Balloons, and Spacecraft
- Ground-Based VLF/ELF/ULF, Photometers
- Imaging and Remote Sensing (ITM/Earth)
- Imaging and Remote Sensing (Magnetosphere)
- Imaging and Remote Sensing (Sun)
- Magnetic Fields (space)
- Neutral Gas
- Particles (space)
- Plasma (ITM)
- Plasma and Solar Wind

Time Range: (pick one)

- All Times
- from: 2005/08/10 thru: 2005/08/11

Filter String: (optional, e.g. ascii)

Datasets and Variables:

Select Datasets to download files and variables to display data

- a1_k0_mpa_cdaweb
- a2_k0_mpa_cdaweb
- ac_h1_epm_cdaweb
- ACE_Combined_Key-Parameters-Plots_1day_pdf_nssdcftp
- ACE_Combined_Key-Parameters-Plots_1day_ps_nssdcftp
- ACE_Combined_Key-Parameters-Plots_27day_pdf_nssdcftp
- ACE_Combined_Key-Parameters-Plots_27day_ps_nssdcftp
- ACE_Combined_Magnetic-Field-Plasma_4min_ascii_nssdcftp
- ACE_CRIS_Isotopes-100-to-500-MeV/nuc-Level2_1day_ascii_nssdcftp
- ACE_CRIS_Isotopes-100-to-500-MeV/nuc-Level2_1day_hdf_nssdcftp
- ACE_CRIS_Isotopes-100-to-500-MeV/nuc-Level2_1hour_ascii_nssdcftp
- ACE_CRIS_Isotopes-100-to-500-MeV/nuc-Level2_1hour_hdf_nssdcftp
- ACE_CRIS_Isotopes-100-to-500-MeV/nuc-Level2_27day_ascii_nssdcftp
- ACE_CRIS_Isotopes-100-to-500-MeV/nuc-Level2_27day_hdf_nssdcftp
- ACE_EPAM_Particles-50-to-1900-keV-Key-Parameters-K0_5min_cdf_cdaweb

Title: K0 - ACE EPAM 5-Minute Key Parameters
1997, Aug 31 - 2005, Jun 30
P.I./Affiliation: R. Gold / JHU Applied Physics Laboratory

Variables:

- Proton Flux (0.48-0.97 MeV)
- Ion Flux (47-65 keV)
- Ion Flux (112-187 keV)
- Ion Flux (310-580 keV)
- Ion Flux (1060-1910 keV)
- Electron Flux (38-53 keV)
- Electron Flux (175-315 keV)
- ACE_EPAM_Particles-50-to-1900-keV-Key-Parameters-K1_1hour_cdf_cdaweb
- ACE_EPAM_Particles-50-to-1900-keV-Level2-H2_1hour_cdf_cdaweb
- ACE_EPAM_Particles-50-to-1900-keV-Level2_1day_ascii_nssdcftp
- ACE_EPAM_Particles-50-to-1900-keV-Level2_1day_hdf_nssdcftp
- ACE_EPAM_Particles-50-to-1900-keV-Level2_1hour_ascii_nssdcftp
- ACE_EPAM_Particles-50-to-1900-keV-Level2_1hour_hdf_nssdcftp
- ACE_EPAM_Particles-50-to-1900-keV-Level2_27day_ascii_nssdcftp
- ACE_EPAM_Particles-50-to-1900-keV-Level2_27day_hdf_nssdcftp

Buttons: All Datasets, with Variables ONLY, User Defined

Time Range: Show dataset details, font Size

Start Time (UTC): 2004/08/09 00:00

End Time (UTC): 2004/08/10 00:00

Actions: Download Files, Plot Data, List Data, Create CDFs

Buttons: Show Datasets, Cancel, Display, Cancel

Select all, deselect all controls

User choice of time formats (day of year, month/day)

Easy to cancel operation if desired

Building out the set of more descriptive names

Use of check and uncheck boxes rather than simple line highlighting to improve user view

Once datasets are listed, ability to subselect to data that can be plotted or user keyword

- **Greatly improved interface performance in building dataset lists**
 - E.g. 30-60 seconds to build a list of all datasets with variables etc



Other Work and Accomplishments

- **SECAA's 1st priority to maintain service levels and existing data flows**
 - Significant ongoing monitoring, maintenance, and QC of data, s/w and products
- **Replacing CDAWeb's Hardware**
 - CPU : New server now in-house; software port from Tru64 to Linux continuing
 - Disk: Original delivery of new RAID array delayed but almost here finally
 - Backups: System (Qualstar) now ordered; will use LTO-3 tape technology
- **Sample new and updated data sets**
 - Added to public holdings: Polar EFI 6 second plasma densities and potentials, LANL 2001 and 2002 MPA (plus orbits to SSCWeb), TIMED SEE Level3C, many additional Polar UVI Level1 and PWI highest-resolution files
 - Voyager hourly magnetic field data through 1999 (in COHOWeb, in-progress CDAWeb)
 - Coming: improved plasma moments from Wind 3DP
 - Coming: almost all Cluster Prime Parameter data are being made public
 - > But data for several instruments will only allow public access via PI sites
- **Science Advisory Group**
 - Meeting dates now set for September 29-30, 2005 at Goddard
 - Chair: Terry Onsager (NOAA)
 - > Members (still subject to last-minute schedule conflicts/changes): Larry Paxton (APL), John Richardson (MIT), Neal Hurlburt (LM SAL), Dave Sibeck (GSFC) plus Aaron Roberts (GSFC) as a senior consultant
 - > Represent wide range of discipline and data/theory/technology interests